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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,288	04/18/2001	Louis Robert Litwin JR.	PU010067	9634

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EXAMINER

TRUONG, THANHNGA B

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/837,288	Applicant(s) LITWIN ET AL.	
	Examiner Thanhnga Truong	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al (US 6,240,513 B1), and further in view of Meiksin et al (US 6,370,396 B1).

a. Referring to claim 1:

i. Friedman teaches:

(1) transmitting a private key individually to each of the plurality of powerline modem devices to be secured in a network such that each powerline modem device receives the private key in isolation of the network, each of the plurality of powerline modem devices store the private key; computing a public key, by a master device in the network to be secured; transmitting the public key from the master device to the plurality of devices; computing a shared key at each of the plurality of powerline devices based on the public key and the private key; and communicating within the secured network by employing messages encrypted based on the shared key [i.e., **a preferred embodiment of the inventive network security device comprises a first network interface connected to a protected client, a second network interface connected to a portion of a network, and a processing circuit connected to both interfaces. A communication from the protected client goes from the client, to the first interface, to the processing circuit, to the second interface and into the network. Similarly, a communication received from the network goes from the second interface, to the processing circuit, to the first interface and to the protected client. A preferred embodiment of the present invention has four keys associated with it: (1) a static (permanent) private key; (2)**

dynamic (changing) private key; (3) a static public key; and (4) a dynamic public key. In a preferred embodiment, the public keys are exchanged between two network security devices in order to establish a common secret key. The common secret key is the key which is used to encrypt/decrypt all messages between two particular devices. This key should not be transmitted. The common crypto key (i.e., the common secret key) is obtained using a public key cryptography technique (column 5, lines 15-65)].

ii. However, Friedman does not mention the use of powerline modem, whereas Meiksin teaches:

(1) Figure 17 illustrates a typical implementation of a powerline communications module showing connections between individual blocks. The powerline communications module 1700 includes an interface module 1701 comprising a digital signal processor ("DSP"), logic, and active electronics for processing the audio signals and external control signals. The interface module 1701 is connected to an AC powerline modem 1702 through connections 1707. The connection 1707 may be standard RS-232 serial communications. The AC powerline modem 1702 modulates and demodulates digital data for transmission and reception over the AC powerline (column 20, lines 24-35).

iii. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to:

(1) include such powerline communications module (in Friedman's Figures 4A-4B) for providing a two-way bi-directional voice communications as well as digital communications in the environment where electromagnetic energy transfer is blocked or limited (column 2, lines 65-67 of Meiksin).

iv. The ordinary skilled person would have been motivated to:

(1) improvements in a network security device that is connected between a protected computer("the client") and a network and/or a protected local area network (LAN) and a wide area network (WAN) as well as a method for using the network security device (column 1, lines 15-20 of Friedman).

b. Referring to claims 2-4, 10-11, 13-15, 18:

i. These claims have limitations that is similar to those of claim 1, thus they are rejected with the same rationale applied against claim 1 above.

c. Referring to claim 5:

i. This claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above. Meiksin further teaches:

(1) **A control unit, which may be designated as either a master or interface unit, provides power to the transceivers and allows for bi-directional communication of audio or voice, control and status information between the control unit and each transceiver. In this way, the control unit can force the RF transceiver to transmit an audio signal so that anyone within range of the transceiver hears the audio message on their portable hand-held radio (column 3, lines 25-32).**

d. Referring to claims 6-7:

i. These claims have limitations that is similar to those of claim 5, thus they are rejected with the same rationale applied against claim 5 above.

e. Referring to claim 8:

i. Meiksin further teaches:

(1) wherein the data includes a software update for a powerline modem device [i.e., **a software algorithm may be implemented to perform the coding and/or decoding of the speech signals. When the other powerline communications modules receive the coded speech waveform over the network, the powerline communications modules convert the signal back to an analog speech waveform, e.g., by using a speech coding integrated circuit or a software-implemented algorithm (column 18, lines 55-63).**]

f. Referring to claims 9, 17:

i. These claims have limitations that is similar to those of claim 5, thus they are rejected with the same rationale applied against claim 5 above.

g. Referring to claim 12:

i. This claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

h. Referring to claim 1 6:

i. This claim has limitations that is similar to those of claim 6, thus it is rejected with the same rationale applied against claim 6 above.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Naruse et al (US 5, 867, 821) discloses a secure information processing device is provided at each end, between the equipment and the communications line, and either encodes outgoing information or decodes incoming information, in accordance with a randomly generated key code, depending on whether the equipment at a particular end is transmitting or receiving a communication (see abstract).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanhnga (Tanya) Truong whose telephone number is 571-272-3858.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

TBT

November 1, 2004


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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